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Objections

The Examiner objected to claims 11-13, 15, and 21 as being dependent upon a rejected base claim. In view of the following discussion, the Applicant respectfully submits that none of the base claims now pending in the application are anticipated under the provisions of 35 U.S.C. § 102 or obvious under the provisions of 35 U.S.C. § 103. As such and for at least the reasons set forth herein, the Applicant also submits that the claims dependent upon the base claims are also not anticipated under the provisions of 35 U.S.C. § 102 or obvious under the provisions of 35 U.S.C. § 103 and are patentable thereunder.

In view of the following discussion, the Applicants respectfully submit that the basis for the Examiner's objections to Applicants' claims 11-13, 15, and 21 has been removed. Therefore it is respectfully requested that these objections be withdrawn.

Rejections

A. 35 U.S.C. § 102

The Examiner rejected claims 1, 2, and 16 under 35 U.S.C. § 102(b) as being anticipated by Bunse, U.S. Patent 5,654,815. The rejection is respectfully traversed.

Claims 1, 2, and 16

The Examiner alleges that, in regard to claims 1 and 16, "Bunse teaches apparatus for providing synchronization signals to a telecommunications network comprising:

a central synchronization management unit (switching network SN) (Fig. 1) for distributing synchronization signals, and a synchronization distribution unit (synchronizing subunits SUB1 to SUB3) (Fig. 1, col. 7, lines 55-62) connected to receive synchronization signals from the central synchronization management unit (switching network SN) and to distribute the signals to at least one network element (terminals E1, E2, E3) (Fig. 1)." The Applicant respectfully disagrees.

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"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1983)) (emphasis added).

Bunse fails to disclose at least the invention as recited in Applicant's claim 1 as follows:

"Apparatus for providing synchronization signals to a telecommunications network comprising:
a central synchronization management unit for distributing synchronization signals; and
a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to at least one network element." (emphasis added).

The Applicant's invention is directed to several embodiments of synchronization systems, wherein synchronization and management signals are carried over links between a central synchronizing management unit and each synchronizing distribution unit, and between each synchronizing distribution unit and each network element. (See Applicant's Specification, page 4, lines 21-24).

There is absolutely no disclosure in Bunse for "a central synchronization management unit for distributing synchronization signals" as claimed by the Applicants' claim 1. The Examiner alleges that the switching network SN in Bunse teaches the central synchronization management unit of the Applicant's invention. The Applicant respectfully disagrees. Bunse teaches:

"The synchronizing unit SYNC2 and the switching network SN receive clock signals from the clock generator CLOCK2. The switching network SN is an all-optical switching network. It switches data packets which are supplied to it in optical form at the bit and frame rate of the clock generator CLOCK2. Because of internal switching times, the frame-rate clock is chosen so that between the data packets there are time intervals in which the internal switching operations can take place. The clock

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generator CLOCK2 generates the bit- and frame-rate clock of the exchange EX. The synchronizing unit SYNC2 synchronizes the bit- and frame-rate clock of the terminals E1 to E3 with the bit- and frame-rate clock of the clock generator CLOCK2. As a result of this constant synchronization, the data packets from the terminals E1 to E3 arrive at the exchange EX at the correct instant and can be fed immediately, without temporary storage, to the switching network SN. The switching network SN then switches the data packets and sends them to the destination terminals." (See Bunse, col. 7, lines 34-55).

The switching network SN taught in Bunse does not distribute any synchronization signals. Instead, the clock generator produces the clock signal for the switching network SN and also sends clock signals to the bit sequence generator of the synchronizing unit. The bit sequence generator then generates periodic bit sequences, which serve as synchronization signals. The synchronizing subunits correlate the synchronization signals contained in the data stream from the terminals with the synchronization signals from the bit sequence generator and send the resulting correlation signals back to the respective terminals. (See Bunse, col. 8, lines 1-21). In further contrast to the Applicant's invention, the synchronizing subunits of Bunse do not distribute the synchronization signals to the network elements (terminals), but instead send a correlation signal to the terminals, intended to adjust the clocks of the terminal in relation to the correlation signal.

Therefore, the Applicant submits that claim 1 is not anticipated by the teachings of Bunse and, as such, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

Likewise, independent claim 16 recites similar features as recited in claim 1. As such, the Applicant submits that independent claim 16 is not anticipated by the teachings of Bunse and also fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

Furthermore, dependent claim 2 depends directly from claim 1 and recites additional features therefor. As such and for at least the reasons set forth herein, the Applicant submits that claim 2 is also not anticipated by the teachings of

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Bunse. Therefore the Applicant submits that dependent claim 2 also fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

B. 35 U.S.C. § 103(a)

Claims 3 and 4

The Examiner rejected claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over Bunse, U.S. Patent 5,654,815, in view of Sotom et al., U.S. Patent 5,796,501. The rejection is respectfully traversed.

Claims 3 and 4 depend from Independent claim 1 and recite limitations directed to an apparatus for providing synchronization signals including a central synchronization management unit for distributing synchronization signals and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to at least one network element. The Examiner applied Bunse to claims 3 and 4 as described above for the Examiner's rejection of claim 1.

The Examiner concedes though, that Bunse differs from claim 3 of the present invention in that he does not disclose an optical processor for producing optical clock signals. As such, the Examiner cites Sotom et al. for alleging that as evidenced by Sotom et al., providing an optical processor for producing optical clock signals is well known in the art. The Applicant respectfully disagrees.

Regarding claim 4, the Examiner alleges that the combination of Bunse and Sotom teaches an apparatus wherein central synchronization management unit further comprises a processor for retiming clock signals received at said input port. The Applicant respectfully disagrees.

At least because Bunse does not disclose or suggest the invention of the Applicant regarding claim 1 as discussed above, the further teachings of Sotom et al. in combination with the teachings of Bunse do not render the Applicant's claims 3 and 4 obvious.

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In particular, regarding claim 3, the Applicant's claim recites the further limitation of the central synchronization management unit further including an optical processor for producing optical clock signals, to independent claim 1 for an apparatus for providing synchronization signals comprising "a central synchronization management unit for distributing synchronization signals; and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to a least one network element."

Furthermore, the optical processor disclosed in Sotom does not in any way suggest or teach the optical processor of the Applicant's claim 3 for producing optical clock signals. Sotom teaches an optical processor wherein;

"The processor unit 23 receiving the labels D_{ij} determines from the position of each label in the time interval the wavelength of the sender and the wavelength conversion to be carried out to have the corresponding message conveyed at the output by the wavelength associated with the addressee of the message identified by the label. According to the conversions to be carried out and any conflicts detected, the processor unit controls the switching stage 16 to set up the appropriate connections between the outputs of the buffer memory 15 and the inputs of the wavelength selectors SEL_j . In parallel with this, the unit 23 controls the switches SW_i of each of the wavelength selectors SEL_j so that each wavelength selector SEL_j associated with the destination node N_j supplies at the output the wavelength $\lambda_{i,j}$ associated with the sender of the message." (See Sotom, col. 6, lines 20-34).

The optical processor in Sotom does not produce optical clock signals as the optical processor of the Applicant's claim 3.

In contrast, the Applicant discloses that, "After recovering and retiming the clock signal, the clock signals are converted to optical form by an optical Input/Output processor 308." (See Applicant Specification, page 11, lines 29-30).

The combination of the references does not teach or suggest the Applicant's invention of claims 3 and 4. As such, the Applicant respectfully submits that claims 3 and 4 are not rendered obvious by Bunse in view of Sotom.

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Therefore, the Applicant submits that claims 3 and 4, as they now stand, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

C. 35 U.S.C. § 103(a)

The Examiner rejected claims 5-7 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Bunse in view of Sotom, and further in view of Tanaka et al., U.S. Patent 6,160,816. The rejection is respectfully traversed.

Claims 5 and 17

Claims 5 and 17 depend from independent claims 1 and 16 and recite limitations directed to a method and apparatus for providing synchronization signals including a central synchronization management unit for distributing synchronization signals and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to at least one network element. The Examiner applied Bunse to claims 5 and 17 as described above for the Examiner's rejection of claims 1 and 16. The Examiner applied Bunse and Sotom to claim 5 as described above for the Examiner's rejection of claims 3 and 4.

Regarding claims 5 and 17, the Examiner concedes that the combination of Bunse and Sotom differs from claims 5 and 17 of the present invention in that it does not specifically teach wherein the input port is equipped to receive clock signals from a plurality of clock sources. As such, the Examiner cites Tanaka for alleging that as evidenced by Sotom et al., providing the input port is equipped to receive clock signals from a plurality of clock sources is well known in the art.

At least because Bunse does not disclose or suggest the invention of the Applicant regarding claims 1 and 16, and since the combination of Bunse and Sotom do not disclose or suggest the invention of the Applicant regarding claims 3 and 4 as discussed above, the further teachings of Tanaka in combination with the teachings of Bunse and Sotom do not render the Applicants' claims 5 and 17

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obvious. In particular, the Applicant's claims 5 and 17 recite the further limitation wherein the input port is equipped to receive clock signals from a plurality of clock sources to independent claims 1 and 16 for providing synchronization signals comprising "a central synchronization management unit for distributing synchronization signals; and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to a least one network element." The distribution of the synchronization signals from the plurality of clock sources by the central synchronization management unit as claimed in the Applicant's claims 5 and 17 is not taught, disclosed, or suggested by the combination of the references. As such, the Applicant respectfully submits that claims 5 and 17 are not rendered obvious by Bunse and Sotom and further in view of Tanaka.

Therefore, the Applicant submits that claims 5 and 17 as they now stand, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

Claim 6

Claim 6 depends indirectly from independent claim 1 and recites limitations directed to an apparatus for providing synchronization signals including a central synchronization management unit for distributing synchronization signals and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to at least one network element. The Examiner applied Bunse to claim 6 as described above for the Examiner's rejection of claim 1. The Examiner applied Bunse, Sotom and Tanaka to claim 6 as described above for the Examiner's rejection of claim 5. The Examiner alleges that the combination of Bunse, Sotom and Tanaka teaches an apparatus for providing synchronization signals to a telecommunications network wherein the central synchronization management unit selects one of a plurality of input clock signals as a primary clock output signal. The Applicant respectfully disagrees.

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At least because Bunse does not disclose or suggest the invention of the Applicant regarding claim 1, and at least because the combination of Bunse, Sotom and Tanaka do not disclose or suggest the invention of the Applicants regarding claim 5 as discussed above, the combination of the references do not render the Applicant's claim 6 obvious. In particular, the Applicant's claim 6 recites the further limitation wherein the central synchronization management unit selects one of a plurality of input clock signals as a primary clock output signal to claim 1 for providing synchronization signals comprising "a central synchronization management unit for distributing synchronization signals; and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to a least one network element."

Furthermore, there is absolutely no teaching or suggestion in Tanaka for selecting one of a plurality of input clock signals as a primary clock output. In contrast to the Applicant's claim 6, Tanaka discloses "Here in the DS-1 extension system as depicted in FIG. 2, the exchange accommodating the IDT, and the DNE are respectively operated in synchronism with timing sources A and B which are independent of each other." (See Tanaka, col. 1, lines 66-67 through col. 2, lines 1-2). Tanaka further teaches "First, a circuit terminating set (clock regenerators 409, 417; frame synchronizers/signalling extractors 410, 418; and frame generators/signalling inserters 413, and 416) terminates a plurality of circuits synchronized with a plurality of timing sources." (See Tanaka, Summary of the Invention). As such, the Applicant respectfully submits that claim 6 is not rendered obvious by the combination of Bunse and Sotom and Tanaka.

Therefore, the Applicant submits that claim 6 as it now stands, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Claim 7

Claim 7 depends indirectly from independent claim 1 and recites limitations directed to an apparatus for providing synchronization signals

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including a central synchronization management unit for distributing synchronization signals and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to at least one network element. The Examiner applied Bunse to claim 7 as described above for the Examiner's rejection of claim 1. The Examiner applied Bunse, Sotom and Tanaka to claim 7 as described above for the Examiner's rejection of claim 6. The Examiner alleges that the combination of Bunse, Sotom and Tanaka teaches an apparatus for providing synchronization signals to a telecommunications network wherein the central synchronization management unit produces a plurality of optical clock output signals. The Applicant respectfully disagrees.

At least because Bunse does not disclose or suggest the invention of the Applicant regarding claim 1, and at least because the combination of Bunse, Sotom and Tanaka do not disclose or suggest the invention of the Applicants regarding claim 6 as discussed above, the combination of the references does not render the Applicant's claim 7 obvious. In particular, the Applicant's claim 7 recites the further limitation wherein the central synchronization management unit produces a plurality of optical clock output signals, to claim 1 for providing synchronization signals comprising "a central synchronization management unit for distributing synchronization signals; and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to a least one network element."

Furthermore, there is absolutely no teaching or suggestion in Tanaka for selecting one of a plurality of input clock signals as a primary clock output. In contrast to the Applicant's claim 6, Tanaka discloses "Here in the DS-1 extension system as depicted in FIG. 2, the exchange accommodating the IDT, and the DNE are respectively operated in synchronism with timing sources A and B which are independent of each other." (See Tanaka, col. 1, lines 66-67 through col. 2, lines 1-2). Tanaka further teaches "First, a circuit terminating set (clock regenerators 409, 417; frame synchronizers/signalling extractors 410, 418; and

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frame generators/signalling inserters 413, and 416) terminates a plurality of circuits synchronized with a plurality of timing sources." (See Tanaka, Summary of the Invention). As such, the Applicant respectfully submits that claim 7 is not rendered obvious by the combination of Bunse and Sotom and Tanaka.

Therefore, the Applicant submits that claim 7 as it now stands, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

D. 35 U.S.C. § 103(a)

The Examiner rejected claims 8-10 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Andersson in view of Abe, U.S. Patent 5,687,015. The rejection is respectfully traversed.

Claim 8

Claim 8 depends indirectly from independent claim 1 and recites limitations directed to an apparatus for providing synchronization signals including a central synchronization management unit for distributing synchronization signals and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to at least one network element. The Examiner applied Bunse to claim 8 as described above for the Examiner's rejection of claim 1. The Examiner concedes though, that Bunse differs from claim 8 of the present invention in that he does not disclose wherein the synchronization distribution unit comprises a passive optical input port configured to receive an optical clock signal and to split the optical clock signal into two signals, routing one of the split signals to an optical output. As such, the Examiner cites Abe for alleging that as evidenced by Abe, providing wherein the synchronization distribution unit comprises a passive optical input port configured to receive an optical clock signal and to split the optical clock signal into two signals, routing one of the split

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signals to an optical output is well known in the art. The Applicant respectfully disagrees.

At least because Bunse does not disclose or suggest the invention of the Applicant regarding claim 1, the combination of the teachings of Bunse and Abe does not render the Applicant's claim 8 obvious. In particular, the Applicant's claim 8 recites the further limitation wherein the synchronization distribution unit comprises a passive optical input port configured to receive an optical clock signal and to split the optical clock signal into two signals, routing one of the split signals to an optical output to claim 1 for providing synchronization signals comprising "a central synchronization management unit for distributing synchronization signals; and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit. As such, the Applicant respectfully submits that claim 8 is not rendered obvious by the combination of Bunse and Abe.

Therefore, the Applicant submits that claim 8 as it now stands, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Claim 9

Claim 9 depends indirectly from independent claim 1 and recites limitations directed to an apparatus for providing synchronization signals including a central synchronization management unit for distributing synchronization signals and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to at least one network element. The Examiner applied Bunse to claim 9 as described above for the Examiner's rejection of claim 1. The Examiner applied Bunse and Abe to claim 9 as described above for the Examiner's rejection of claim 8. The Examiner alleges that the combination of Bunse and Abe teaches an apparatus for providing synchronization signals to a telecommunications network wherein the synchronization distribution unit comprises an active optical input port configured to receive an optical clock

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signal; and a clock recovery system configured to perform clock recovery on an optical clock signal received at either the active or passive optical input port. The Applicant respectfully disagrees.

At least because Bunse does not disclose or suggest the invention of the Applicant regarding claim 1, the combination of the teachings of Bunse and Abe does not render the Applicant's claim 9 obvious. In particular, the Applicant's claim 9 recites the further limitation for providing synchronization signals to a telecommunications network wherein the synchronization distribution unit comprises an active optical input port configured to receive an optical clock signal; and a clock recovery system configured to perform clock recovery on an optical clock signal received at either the active or passive optical input port to claim 1 for providing synchronization signals comprising "a central synchronization management unit for distributing synchronization signals; and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit.

Furthermore, there is absolutely no teaching or suggestion in the combination of Bunse and Abe for a clock recovery system configured to perform clock recovery on an optical clock signal received at either the active or passive optical input port as recited in the Applicant's claim 9. In contrast Abe teaches an apparatus for preventing clocks having the same priority value from being transmitted from two or more channel boards and a means for notifying interfaces if a clock contained in radio reception becomes the equipment clock. (See Abe, col. 9, lines 59-67 through col. 10, lines 1-40). As such, the Applicant respectfully submits that claim 9 is not rendered obvious by the combination of Bunse and Abe.

Therefore, the Applicant submits that claim 9 as it now stands, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

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Claims 10 and 14

Claim 10 depends indirectly from independent claim 1 and recites limitations directed to an apparatus for providing synchronization signals including a central synchronization management unit for distributing synchronization signals and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit and to distribute the signals to at least one network element. The Examiner applied Bunse to claim 10 as described above for the Examiner's rejection of claim 1. The Examiner applied Bunse and Abe to claim 10 as described above for the Examiner's rejection of claim 9. The Examiner alleges that the combination of Bunse and Abe teaches an apparatus for providing synchronization signals to a telecommunications network wherein the clock recovery system is configured to receive optical clock signals from said active optical input port and from said passive optical input port and to perform clock recovery on an optical clock input from a selected one of the active and passive optical input ports. The Applicant respectfully disagrees.

At least because Bunse does not disclose or suggest the invention of the Applicant regarding claim 1, the combination of the teachings of Bunse and Abe does not render the Applicant's claim 10 obvious. In particular, the Applicant's claim 10 recites the further limitation wherein the clock recovery system is configured to receive optical clock signals from said active optical input port and from said passive optical input port and to perform clock recovery on an optical clock input from a selected one of the active and passive optical input ports to claim 1 for providing synchronization signals comprising "a central synchronization management unit for distributing synchronization signals; and a synchronization distribution unit connected to receive synchronization signals from the central synchronization management unit.

Furthermore, there is absolutely no teaching or suggestion in the combination of Bunse and Abe for a clock recovery system configured to perform clock recovery on a selected optical clock signal received at either the active or

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passive optical input port as recited in the Applicant's claim 9. In contrast Abe teaches an apparatus for preventing clocks having the same priority value from being transmitted from two or more channel boards and a means for notifying interfaces if a clock contained in radio reception becomes the equipment clock. (See Abe, col. 9, lines 59-67 through col. 10, lines 1-40). As such, the Applicant respectfully submits that claim 10 is not rendered obvious by the combination of Bunse and Abe. Furthermore, claim 14 depends from claim 10 and recites additional features therefor. As such and for at least the reasons set forth herein, the Applicant submits that claim 14 is also not anticipated by the teachings of Bunse.

Therefore, the Applicant submits that claims 10 and 14 as they now stand, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

E. 35 U.S.C. § 103(a)

The Examiner rejected claims 18-20 under 35 U.S.C. § 103(a) as being unpatentable over Bunse and Sotom et al. in view of Tanaka et al. and further in view of Abe. The rejection is respectfully traversed.

Claim 18

Claim 18 depends from independent claim 16 and recites limitations directed to a method for distributing synchronization signals in a telecommunications office including recovering a clock signal at a central synchronization management unit, and retiming the clock signal from the central synchronization management unit and distributing it over an optical link to a synchronization distribution unit, and transmitting the clock signal from the synchronization distribution unit to a telecommunications network element. The Examiner applied Bunse to claim 18 as described above for the Examiner's rejection of claim 16. The Examiner applied Bunse, Sotom and Tanaka to claim 18 as described above for the Examiner's rejection of claim 17.

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Regarding claim 18, the Examiner concedes that the combination of Bunse, Sotom and Tanaka differs from claim 18 of the present invention in that it does not disclose wherein the central synchronization management unit produces two clock output signals from the selected one of the plurality of clock signals received by the central synchronization management unit and transmits one of the clock output signals over an optical link to an active input port of the synchronization distribution unit and transmits the other of the clock output signals over an optical link to a passive input port of the synchronization distribution unit. As such, the Examiner cites Abe for alleging that as evidenced by Abe, providing wherein the central synchronization management unit produces two clock output signals from the selected one of the plurality of clock signals received by the central synchronization management unit and transmits one of the clock output signals over an optical link to an active input port of the synchronization distribution unit and transmits the other of the clock output signals over an optical link to a passive input port of the synchronization distribution unit is well known in the art. The Applicant respectfully disagrees.

At least because Bunse does not disclose or suggest the invention of the Applicant regarding claim 16, and since the combination of Bunse, Sotom and Tanaka do not disclose or suggest the invention of the Applicant regarding claims 17 as discussed above, the further teachings of Abe in combination with the teachings of Bunse, Sotom and Tanaka do not render the Applicant's claim 18 obvious. In particular, the Applicant's claim recites the further limitation wherein the central synchronization management unit produces two clock output signals from the selected one of the plurality of clock signals received by the central synchronization management unit and transmits one of the clock output signals over an optical link to an active input port of the synchronization distribution unit and transmits the other of the clock output signals over an optical link to a passive input port of the synchronization distribution unit to independent 16 for method for distributing synchronization signals in a telecommunications office including recovering a clock signal at a central synchronization management unit,

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and retiming the clock signal from the central synchronization management unit and distributing it over an optical link to a synchronization distribution unit, and transmitting the clock signal from the synchronization distribution unit to a telecommunications network element. As such, the Applicant respectfully submits that claim 18 is not rendered obvious by Bunse and Sotom et al. in view of Tanaka et al. and further in view of Abe.

Therefore, the Applicant submits that claim 18 as it now stands, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Claim 19

Claim 19 depends indirectly from independent claim 16 and recites limitations directed to a method for distributing synchronization signals in a telecommunications office including recovering a clock signal at a central synchronization management unit, and retiming the clock signal from the central synchronization management unit and distributing it over an optical link to a synchronization distribution unit, and transmitting the clock signal from the synchronization distribution unit to a telecommunications network element. The Examiner applied Bunse to claim 19 as described above for the Examiner's rejection of claim 16. The Examiner applied Bunse, Sotom, Tanaka, and Abe to claim 19 as described above for the Examiner's rejection of claim 18. The Examiner alleges that the combination of Bunse, Sotom, Tanaka, and Abe teaches an apparatus for providing synchronization signals to a telecommunications network further comprising the step of selecting by a synchronization distribution unit of one of the passive and active optical input clock signals to transmit to a network element. The Applicant respectfully disagrees.

At least because Bunse does not disclose or suggest the invention of the Applicant regarding claim 16, and because the combination of the teachings of Bunse, Sotom, Tanaka, and Abe does not render the Applicant's claim 18 obvious, the combination of the teachings of Bunse, Sotom, Tanaka, and Abe

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does not render the Applicant's claim 19 obvious. In particular, the Applicant's claim 19 recites the further limitation of further comprising the step of selecting by an synchronization distribution unit of one of the passive and active optical input clock signals to transmit to a network element to claim 16 for distributing synchronization signals in a telecommunications office including recovering a clock signal at a central synchronization management unit, and retiming the clock signal from the central synchronization management unit and distributing it over an optical link to a synchronization distribution unit, and transmitting the clock signal from the synchronization distribution unit to a telecommunications network element. As such, the Applicant respectfully submits that claim 19 is not rendered obvious by the combination of Bunse, Sotom, Tanaka, and Abe.

Therefore, the Applicant submits that claim 19 as it now stands, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Claim 20

Claim 20 depends indirectly from independent claim 16 and recites limitations directed to a method for distributing synchronization signals in a telecommunications office including recovering a clock signal at a central synchronization management unit, and retiming the clock signal from the central synchronization management unit and distributing it over an optical link to a synchronization distribution unit, and transmitting the clock signal from the synchronization distribution unit to a telecommunications network element. The Examiner applied Bunse to claim 20 as described above for the Examiner's rejection of claim 16. The Examiner applied Bunse, Sotom, Tanaka, and Abe to claim 20 as described above for the Examiner's rejection of claim 19. The Examiner alleges that the combination of Bunse, Sotom, Tanaka, and Abe teaches an apparatus for providing synchronization signals to a telecommunications network wherein the selected clock signal is converted from an optical to an electrical signal before transmission to the network elements. The Applicant respectfully disagrees.

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At least because Bunse does not disclose or suggest the invention of the Applicant regarding claim 16, and because the combination of the teachings of Bunse, Sotom, Tanaka, and Abe does not render the Applicant's claim 19 obvious, the combination of the teachings of Bunse, Sotom, Tanaka, and Abe does not render the Applicant's claim 20 obvious. In particular, the Applicant's claim 19 recites the further limitation of providing synchronization signals to a telecommunications network wherein the selected clock signal is converted from an optical to an electrical signal before transmission to the network elements to claim 16 for distributing synchronization signals in a telecommunications office including recovering a clock signal at a central synchronization management unit, and retiming the clock signal from the central synchronization management unit and distributing it over an optical link to a synchronization distribution unit, and transmitting the clock signal from the synchronization distribution unit to a telecommunications network element. As such, the Applicant respectfully submits that claim 20 is not rendered obvious by the combination of Bunse, Sotom, Tanaka, and Abe.

Therefore, the Applicant submits that claim 20 as it now stands, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Conclusion

Thus the Applicant submits that none of the claims, presently in the application, are anticipated under the provisions of 35 U.S.C. § 102 or obvious under the provisions of 35 U.S.C. § 103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. at (732) 530-

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9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,



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Dated: 6/24/02

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